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*Attorneys for Respondents.*

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IN THE

**SUPREME COURT OF THE UNITED STATES**

Court, U. S.

**OCTOBER TERM, 1938**

**JAN 23 1939**

**CHARLES ELMORE OROPLEY**  
CLERK

**HONOLULU OIL CORPORATION, LTD.** (a corporation), and **M. O. JOHNSTON OIL FIELD SERVICE CORPORATION** (a corporation),  
*Petitioners,*

**VS.**

**No. 466**

**ERLE P. HALLIBURTON and HALLIBURTON OIL WELL CEMENTING COMPANY** (a corporation),  
*Respondents.*

**ERLE P. HALLIBURTON and HALLIBURTON OIL WELL CEMENTING COMPANY** (a corporation),  
*Cross-Petitioners,*

**VS.**

**No. 479**

**HONOLULU OIL CORPORATION, LTD.** (a corporation), and **M. O. JOHNSTON OIL FIELD SERVICE CORPORATION** (a corporation),  
*Cross-Respondents.*

**OPENING BRIEF OF HONOLULU OIL CORPORATION, LTD., AND  
M. O. JOHNSTON OIL FIELD SERVICE CORPORATION.**

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Note: This brief having been prepared prior to the printing of the record for use in this Court, all references to the record relate to the pages of the record as made up in the Circuit Court of Appeals, which are indicated by side folio numbers in the record here.

## I.

### PRELIMINARY.

This cause is here on writ of certiorari to review a decision of the Circuit Court of Appeals for the Ninth Circuit in a patent infringement suit.

#### Opinions of the Courts below.

The opinion of the Circuit Court of Appeals for the Ninth Circuit is *Halliburton v. Honolulu Oil Corporation et al.*, 98 F. (2d) 436. (R. Vol. 1, p. 744.) Rehearing was denied. (R. Vol. 1, p. 760.)

The opinion of the District Court in the same case is reported in 18 Fed. Supp. 58. (R. Vol. 1, pp. 33-37.)

A writ of certiorari in the above case was granted presumably because of a direct conflict with a previous decision of the Circuit Court of Appeals for the Fifth Circuit, involving the same patent.

The opinion of the Circuit Court of Appeals for the Fifth Circuit is *Johnston Formation Testing Corporation v. Halliburton*, 88 F. (2d) 270. Certiorari was denied. 301 U.S. 691, 57 S. Ct. 793.

#### Jurisdiction.

The jurisdiction of this Court is invoked under Section 240(a) of the Judicial Code (28 U.S.C.A. §347(a)), and Rule 38, subdivision 5(a), of this Court. The jurisdiction of the Circuit Court of Appeals was under Section 128(a) of the Judicial Code (28 U.S.C.A. §225(a)). The suit is one arising under the patent laws of the United States. Section 24(7) of the Judicial Code as amended (28 U.S.C.A. §41(7)).

The decree of the Circuit Court of Appeals for the Ninth Circuit was entered on July 11, 1938, and the petition for rehearing denied on September 13, 1938.

A petition for a writ of certiorari was filed in this Court on November 8, 1938, and a cross-petition on or about November 18, 1938.

Both the petition and cross-petition were granted by this Court on December 19, 1938.

## II.

### STATEMENT OF CASE.

This is a suit in equity for alleged infringement of United States Letter's Patent No. 1,930,987, dated October 17, 1933, applied for by John T. Simmons of El Dorado, Arkansas, and assigned to Erle P. Halliburton of Los Angeles, California. (Plf.'s Ex. 1; R. Vol. 2, p. 4.)

Erle P. Halliburton, the patent owner, and Halliburton Oil Well Cementing Company, the exclusive licensee, were plaintiffs\* in the trial Court. Honolulu Oil Corporation, Ltd., a producing oil company, and M. O. Johnston Oil Field Service Corporation, owner of the accused devices and employed by the oil company to make tests, were defendants in the trial court below.

The patent is entitled "Method and Apparatus for Testing the Productivity of Formations Encountered

\*For convenience the parties will be referred to herein as plaintiffs and defendants.



in Wells" and contains altogether nineteen separate claims, of which only twelve claims, viz., 8 to 19, both inclusive, were in suit. Claims 8 and 18 are for an alleged method, while the ten remaining claims are for an apparatus.

The patent relates to testing the productivity of formations encountered in drilling oil wells when such wells are drilled under the so-called rotary method. The operation requires the isolation of the formation to be tested from the remainder of the well. This is accomplished by means of a packer, attached to a drill pipe having an inlet at its lower end, such pipe adapted to be inserted in a well hole. The packer, when set, relieves the isolated area from the hydrostatic pressure of the rotary mud and other fluids above, and permits the formation fluid, whether oil, water, gas or the like, to flow from the isolated area through the inlet and into the empty drill pipe which becomes the testing chamber. Such chamber is established in the drill pipe and extends from the formation area to the top of the well hole.

When the formation pressure is sufficiently high, the fluid flows upward through the drill pipe (testing chamber) and the productivity of the formation is tested at the top of the well hole, as in the case of a flowing well, without the necessity of entrapping a sample or removing the apparatus for testing purposes. According to the Simmons patent this is the preferred form. (Patent, p. 1, line 109 to p. 2, line 5; p. 3, lines 5-83.)



When the formation pressure is insufficient, so that the fluid will not flow upward through the drill pipe to the top of the well hole, a sample may be entrapped by closing a valve, and the entire apparatus lifted from the well hole to the surface, for the purpose of examining the sample. (Patent, p. 3, lines 80-91.)

The apparatus therefore consists of (1) a pipe having an inlet at its lower end, (2) a packer carried by said pipe, and (3) a valve for closing the inlet so as to entrap a sample, should the formation pressure be insufficient to send the fluid through the inlet and upward in the drill pipe to the top of the well hole.

In short, the Simmons patent in suit attempts to claim the foregoing apparatus and the method by which it is intended to be used.

The District Court of the United States for the Southern District of California, in the instant case, held the ten apparatus and the two method claims in suit to be invalid and not infringed.

On appeal, the Circuit Court of Appeals for the Ninth Circuit affirmed the District Court as to the ten apparatus claims, and held them to be invalid because anticipated by the previous disclosure in an earlier patent to Benjamin Franklin, No. 263,330 (R. Vol. 2, p. 347) issued on August 29, 1882, forty-four years before the Simmons patent application was filed. The Franklin patent showed the same combination of (1) pipe, (2) packer and (3) valve, as that described and claimed in the patent in suit. The Court, however, reversed the lower court's decree as to the two method claims, and held them valid and infringed.

The anomalous situation is presented that although the Simmons testing device is anticipated and old in the well testing art, and therefore available to the public without the payment of tribute, still when such testing device is actually used in precisely the manner and for the very purpose in which it was intended to be used, such use is enjoined in the Ninth Circuit under the opinion and decree here under review. In effect the so-called method claims dominate the situation and actually give the patent owner a monopoly in the use of an old device.

We have been unable to find any other reported patent decision by either this Court or a Circuit Court of Appeals, where the apparatus claims of a patent have been held invalid, yet the method claims of the same patent, describing the manner in which the apparatus was designed and intended to be used, were held valid and infringed. In that respect this case comes here as one of first impression.

The finding by the Circuit Court of Appeals for the Ninth Circuit, that method claims 8 and 18 are valid, is in direct conflict with the earlier decision of the Circuit Court of Appeals for the Fifth Circuit, decreeing the same method claims 8 and 18 invalid.

The defendants, although different parties, in both cases used the same device for testing oil wells, and the accused method by which the devices were used was also the same. The record in the cases, including exhibits, was substantially the same. Certain fact testimony regarding derivation of the invention by the patentee Simmons from one Philp (88 F. (2d) 270, 273), was omitted in the instant case, but important

additional evidence further invalidating the patent in suit, does appear and was not in the Fifth Circuit case.

Presumably because of a direct conflict of decision between the two Appellate Courts as to method claims 8 and 18, this Court granted our petition for a writ of certiorari, which is in the first case above entitled, No. 466.

No real conflict of decision exists between the two Appellate Courts as to the ten apparatus claims, and defendants were not aggrieved by reason of the decision in respect thereto, for which reason those claims were not included in the scope of the review prayed for in our petition.

Thereafter, a cross-petition for a writ of certiorari was filed by respondents to the original petition, seeking to extend the review of this Court by including the ten apparatus claims, on which merely a conflict of opinion and not of decision exists, with the two method claims on which the conflict is apparent. This Court also granted the cross-petition, which accounts for the second case, above entitled as No. 479.

On final hearing, this Court may conclude that the cross-petition was improvidently granted and that the review should be limited to the validity and infringement of the method claims, raised by the original petition, on which a true conflict exists between courts of concurrent jurisdiction. *Layne & Bowler Corporation v. Western Well Works*, 261 U.S. 387, 43 S. Ct. 422.

For convenience, the briefs herein are entitled in both proceedings which are argued together, since the entire patent is now before this Court.

## III.

**ASSIGNMENT OF ERRORS.**

The Circuit Court of Appeals for the Ninth Circuit was correct in concluding that the ten apparatus claims were invalid but erred in deciding that method claims 8 and 18 were valid, for the following reasons:

1. The method claims merely describe the function of an apparatus, designed and intended for a particular use.

2. The method claims lack invention over Franklin Patent No. 263,330, in view of the prior art.

3. The method claims describe, at most, only a different use for the old device disclosed in the Franklin patent, which different use is itself old.

4. The method claims depend for their novelty upon mechanical limitations, expressly placed there to avoid the prior art.

5. The method claims are not the subject matter of patent protection at all.

6. The claims are not infringed, even though valid, because defendants employ a structure and mode of operation different from that disclosed in the patent in suit.

## IV.

**SUMMARY OF ARGUMENT.****Structure and operation of the patented device.**

The principal elements of the Simmons patented device are a drill pipe having a perforated nipple (strainer) at its lower end, a wedge-shaped (rat hole) packer carried by the pipe, and a valve manipulated from the surface of the well.

**Simmons tester a failure.**

Only three tests were made and the tool was never used commercially. The later Halliburton "Stop Cock and Gear" and "J-Slot" testers resemble the accused device and are a wide departure from the tool shown in the Simmons patent.

**Apparatus claims held invalid.**

In the Ninth Circuit the claims were held invalid while in the Fifth Circuit they were held not infringed because the patent was limited to the apparatus disclosed. But in the Fifth Circuit the Court seriously doubted their validity, believing Philp rather than Simmons to be the alleged inventor.

**The art prior to Simmons.**

The prior patent art, and Carll, Peckham and Chamberlin publications, disclose separately and in combination, a pipe, packer and valve, used for insertion in an oil well. The Cox and Edwards patents relate to testing rotary drilled oil wells. The elimination of a second string of pipe used for circulation does not constitute invention. Plaintiffs and defendants both use means for reestablishing circulation.

**Franklin patent alone a complete anticipation.**

Franklin discloses every element of the Simmons structure. Although intended for regulating the flow of oil wells, it can, without change, be used for testing. Two forms of valve are shown; they do not leak and the tool will entrap a sample. It was successfully operated in California.

**Casing and formation tests.**

In a casing test the packer is set against the casing walls, whereas in a formation test it is usually seated on top of the "rat hole". The patent in suit is limited to formation tests and the claims were expressly amended in that respect.

**The method claims merely describe the function of an apparatus designed and intended for a particular use.**

A comparison of the method claims with corresponding apparatus claims shows that the former merely describe the function or effect of the apparatus embraced in the latter claims. Manual operation was required with both the Franklin and Simmons devices.

**The method claims lack invention over Franklin Patent No. 263,330 in view of the prior art.**

If a process is the mere function of an apparatus, a prior apparatus, capable of performing the same function, is an anticipation. The intended method of operating the Franklin tool, if used for testing, is the same as the method claimed by Simmons.

The method claims describe, at most, only a different use for the old device disclosed in the Franklin patent, which different use is itself old.

A new or different use of an old apparatus is not invention. It required no change in the Franklin tool to adapt it to well testing. When the Franklin patent expired, the public was entitled to use that device for any purpose to which it could be put. Other prior patents show oil well testers which entrap a sample.

The method claims depend for their novelty upon mechanical limitations, expressly placed there, to avoid the prior art.

The file wrapper shows that after several rejections, mechanical limitations were inserted in the method claims. They now depend for their novelty on those limitations. No invention exists over the method disclosed in the Cox and Edwards patents.

The method claims are not the subject matter of patent protection at all.

To be patentable, a method must relate to a tangible product which is changed in some useful manner. The operation of an oil well tester, which entraps a sample and brings it to the top of the well, is not an "art", within the meaning of the statute.

The claims are not infringed, even though valid, because defendants employ a structure and mode of operation different from that disclosed in the patent in suit.

The claims, if valid at all, must receive a narrow interpretation and defendant Johnston's tester, made under its own patents, is differently constructed and operated, and is therefore no infringement. Plaintiffs did not prove use by defendant Honolulu Oil Corporation.



**The Court's opinion.**

It is erroneous in respect to the method and largely based upon the finding that a new use for an old device is patentable as a method. *Lawther v. Hamilton* is not applicable and the proper rule is stated in *Richards v. Chase*.

**Conclusion.**

With the knowledge of Cox, Edwards and the other prior art at hand, it did not require invention to use the Franklin tool for well testing. All the claims in suit, for that additional reason, are invalid.

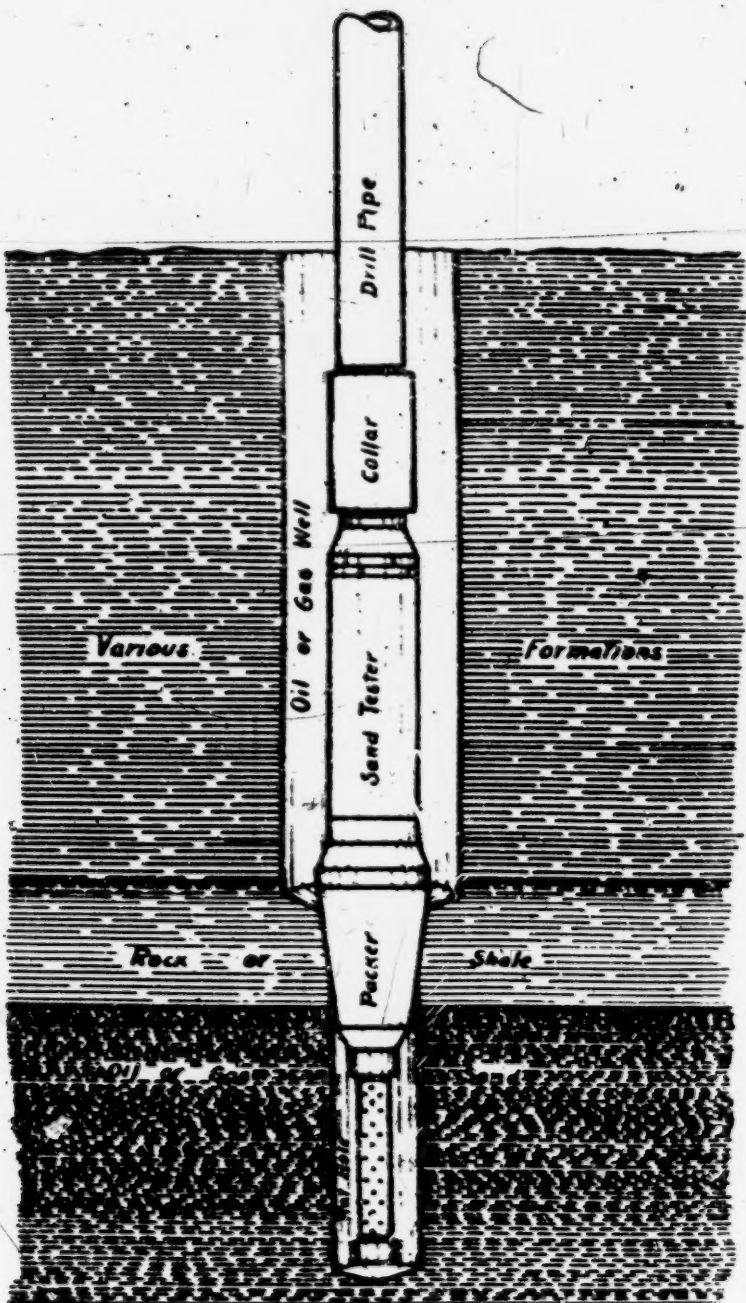
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**V.**
**ARGUMENT.****STRUCTURE AND OPERATION OF THE PATENTED DEVICE.**

The device shown and described in the Simmons patent consists of a drill pipe, having a perforated nipple (called a "strainer") at its lower end, the pipe adapted to be lowered into a well hole with the perforations projecting into an uncased extension of the well bore, having a reduced diameter (called a "rat hole"); a wedge-shaped packer, carried by the pipe, the packer pressing against the formation by seating on the upper shoulder of the "rat hole" so as to isolate what is in the "rat hole" from the hydrostatic pressure of the rotary mud above the packer; and a valve manipulated from the surface of the well when the packer is seated, to either open or close the inlet between the perforations and the interior of the drill pipe.







In operation, the ordinary drill pipe and closed valve structure are first lowered into the well, so that the perforated nipple enters the "rat hole"; the packer is firmly seated at the top of the "rat hole"; the pipe is then rotated to open the valve which enables the fluid from the "rat hole" formation to enter the drill pipe; and finally the pipe is rotated again in the reverse direction to close the valve. The sample to be tested is either obtained at the top of the well hole, if the formation pressure is sufficient to send it that high through the open valve and pipe, or is entrapped<sup>1</sup> in the drill pipe itself, above the closed valve, when the entire apparatus is withdrawn from the well hole.

The packer, when seated, performs the double purpose of (1) separating the isolated area from the remainder of the well hole, and (2) firmly holding the lower valve portion against rotation, so that when the drill pipe carrying the upper valve portion is manually rotated a quarter turn, from the top of the well, the valve is opened or closed according to the will of the operator.

The structure and mode of operation are more fully explained in the patent in suit (Pliffs. Ex. 1; R. Vol. 2, p. 1) and also in the opinion of the Ninth Circuit Court of Appeals herein. The illustration on the opposite page (Pliffs. Ex. 11; R. Vol. 2, p. 223) shows the bottom of a well, drilled through certain strata, with the wedge shaped packer seated at the top of the "rat hole". A model of the Simmons device is in evidence. (Defts. Ex. L.)

### SIMMONS' TESTER A FAILURE.

The Simmons testing device, in the form shown in the patent drawing, was never commercially used. Only three tests were made with the tool. (Plffs. Ex. 9.) One of these was a failure. (R. Vol. 1, p. 592.) The other two were experiments. All the tests were made in the year 1926; since which time the device obscurely reposed in a safe, except during patent litigation. (R. Vol. 1; p. 134.) Simmons went to South America, and apparently forgot all about his invention. Under such circumstances, the patent should be accorded a strict and narrow interpretation according to the Ninth Circuit Court of Appeals. *Cocks v. Rip Van Winkle Wall Bed Co.*, 28 F. (2d) 921.

The District Court herein, found, as a matter of fact, that the Simmons device was a failure, saying:

"It further fairly appears that the patent in suit was in itself an impractical device. No actual commercial use has been shown. The inventor himself within a month after the patent was taken over by the present owner was employed to devise improvements in the valve structure." (R. p. 37.)

About nine months after the first Simmons test, and on December 28, 1926, Halliburton, assignee of the patent in suit, filed an application for a patent on a different form of testing device, termed the "Stop Cock and Gear" tester. (R. Vol. 2, pp. 312-313.) This application was rejected by the Patent Office on several prior patents, particularly the Franklin patent and Simmons' British patent. In order to overcome the Simmons British patent, similar to the United States patent in suit, Halliburton, through his present

attorneys, argued that the Simmons device was unsatisfactory, in that it stuck when rotation was attempted, by reason of the pressure in the well, and that it required a "large amount of study and experimentation" to design a valve and bearing that would work. (R. Vol. 2, p. 297.) The application was again rejected and finally abandoned. The "Stop Cock and Gear" device was, however, commercially used to some extent.

More recently Halliburton commenced using the so-called "J-Slot" tool, in which a large compression spring was employed. (R: Vol. 2, pp. 224, 315.) It closely resembles the accused Johnston tester, and was a wide departure from the Simmons tool, shown and described in the patent. It is the "J-Slot" form of testing tool, devised by Halliburton and not by Simmons, which attained some measure of success.

Commercial success of the patent in suit, so as to benefit plaintiffs, must be confined to the device shown and described in such patent. *Duer v. Corbin Cabinet Lock Co.*, 149 U.S. 216, 13 S. Ct. 850.

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#### APPARATUS CLAIMS HELD INVALID.

The only Simmons apparatus-claims in suit were numbered 9, 10, 11, 12, 13, 14, 15, 16, 17 and 19. These ten claims and their predecessors were twice rejected by the Patent Office examiner as anticipated by earlier patents, and rewritten in an effort to differentiate or narrow them. As first presented, the application embodied no method claims, but these were later added by new counsel employed.

Both the District Court and the Circuit Court of Appeals, in the present case, held the ten apparatus claims invalid; primarily on Franklin patent No. 263,330 of August 29, 1882. (R. Vol. 2, p. 347.)

The Circuit Court of Appeals for the Fifth Circuit, in the earlier case, held similar views respecting the apparatus claims, but preferred to base its decision on non-infringement. That Court, after considering the same prior patents as those considered in the present suit, concluded that the apparatus claims could not be "sustained in all their breadth, but must be limited to the *form of apparatus disclosed*"\* in the patent, which did not cover "a monopoly of all single string testers as here claimed". The patent, said the Court, "is not a basic and pioneer invention". Since the accused Johnston device (same as here in suit) did not embody the Simmons valve and manner of actuating, the "means of trapping and withdrawing the sample is substantially different from those disclosed by Simmons", wherefore the Court concluded there was no infringement of the ten apparatus claims.

The two Circuits are in substantial accord as to the effect of the prior art on the apparatus claims. The Ninth Circuit Court, with additional prior art before it, held them invalid; while the Fifth Circuit interpreted them so narrowly that the alleged invention practically vanished, and so found no infringement. Whichever view is taken, the accused device, radically different from that of the patent in suit, and covered by its own patents (R. Vol. 2, pp. 448-479), should be

\*Italics throughout brief, whether appearing in quotations or not, may be considered as ours.

free of the charge of infringement and open to use without payment of tribute.

Although the decision of the Fifth Circuit rests on the grounds we have stated, still the Court added: "we have *grave doubt* that Simmons is the original and sole inventor of the method and apparatus sought to be patented", the doubt being predicated on fact testimony, not directly in the present suit, establishing one Philp, rather than Simmons, as the alleged inventor. Said the Court: "the idea of using one string of pipe with a valve to be closed and opened by rotating the pipe to entrap a sample below the packer was the idea of Philp." A full discussion of this fact testimony appears in the opinion and a copy of the testimony itself is in the present suit (Plffs. Ex. 5; R. Vol. 1, p. 586) but on account of its bulk, has not been printed in the book of exhibits.

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#### THE ART PRIOR TO SIMMONS.

Before addressing ourselves specifically to the Franklin patent, we should like to consider briefly the alleged invention, both as an apparatus and a process, in its relation to the prior art generally, at the time such invention is said to have been made. It is well summed up in the Fifth Circuit Court opinion, reading in part as follows:

"Packers and pipes with valves in them have long been in use to get what is below the packer free from what is above and without removing what is above. Whether a large quantity is taken from a finished well or a small sample from an



unfinished well does not materially alter the method nor the function of the elements used. There has always been water encountered in oil wells; and the drilling fluid is only very muddy water voluntarily put and kept in the well for special reasons instead of running in from natural sources. Expansible and removable packers with pipes through them to reach the oil, gas, or other desired fluid beneath are shown in the Stewart patents, No. 171,589, December 28, 1875, and No. 230,080, July 13, 1880. 'Rat-hole' packers set by the weight of the piping pressing them down and removable by simply lifting them are shown in Koch, No. 208,610, October 1, 1878; Bloom, No. 785,933, March 28, 1905, and McCready, No. 1,522,197, January 6, 1925. The Cooper patent, No. 1,000,583, August 15, 1911, shows a collapsible packer used to separate water above from what is to be gotten below. The pipe carries a valve to be opened and shut from the surface, but the device is complicated. We find the simplicity of the Simmons method, along with all its operations, reasonably disclosed in the old patent to Franklin, No. 263,330, August 20, 1882."

All the patents mentioned, except Stewart, are in the present record, which additionally includes the reports of Carll and articles by Peckham and Chamberlin, appearing in scientific publications, showing and describing the combination of a pipe, carrying a packer, inserted in a flowing well, at least as early as the year 1880.

The report of John F. Carll, published in 1877 (Defts. Ex. I-1, R. Vol. 2, p. 396), refers to "Armour's water packer" (R. p. 424) and an illustration of such



packer is shown in Plate XXXIX of the report, Fig. i (R. p. 428), and a model in evidence. (Defts. Ex. J.) It is said in the report that such packers "came into general use about the year 1875" (R. p. 424), some seven years before the Franklin patent application was filed. The report also says that the packer "can be introduced on the tubing at any point desired". (R. pp. 422-423.) It was so used to confine the oil and gas in the formation and force it through the restricted opening of the tubing with sufficient pressure.

In an article by S. F. Peckham, published in 1884, reference is made to the same John F. Carll, and Plate VI appears in the article, showing the use of a packer, Fig. 4 (reproduced opposite page 25 of this brief), on a tube in a flowing well as it existed in 1880. (R. Vol. 2, p. 440.) Referring to a description of this plate, the statement is made that "these packers are of rubber". (R. Vol. 2, p. 440.) The article clearly shows and describes a rubber packer at the lower end of the tubing, above the perforations through which oil was to enter, the packer pressing against the formation, forming a seal between the isolated producing area and the well-hole above.

The Chamberlin article (R. Vol. 2, pp. 441, 443) shows and describes seed bags, rubber disks and other forms of packers used for regulating the flow of fluid by confining it to a comparatively small tube. Early tests are also described and illustrated, made with a pipe and packer when there was sufficient pressure in the formation tested to cause the fluid to flow to the surface. (R. Vol. 2, pp. 444-447.)

The structure of the Franklin patent, which we shall fully discuss under our next heading, is a device suitable for controlling and regulating the flow of oil wells, rather than specifically for testing such wells. Testing, however, is controlling the flow of a well, so as to obtain merely a sample, either at the top of the well or by entrapment within the hole itself.

But testing devices for entrapping a sample were also old before Simmons, as shown in patents to Cooper, No. 1,000,583; Cox, No. 1,347,534; and Edwards, No. 1,514,585. (R. Vol. 2, pp. 359, 365 and 386.) No new problems were involved in lowering testing apparatus into the drilling fluid used in the more recent rotary drilling method, rather than into the muddy water encountered in the former method of drilling. As the Court in the Fifth Circuit said: "drilling fluid is only very muddy water". Even plaintiff Halliburton conceded that "it doesn't make any difference what the fluid is" in the well (R. Vol. 1, p. 217), and a similar statement is made by Simmons himself. (Patent, p. 3, lines 43-48.)

Cox patent No. 1,347,534, and Edwards patent, No. 1,514,585, are in the very art of testing strata in deep rotary drilled oil wells by sample taken through the drill pipe. The apparatus, designed for lowering into rotary drilling fluid, had two strings of pipe, one for obtaining the sample and the other for circulating rotary fluid, if desired, while the testing operation was in progress. During the prosecution of the Simmons patent application, fifteen claims were cancelled by applicant on the Edwards patent reference alone. (R. Vol. 2, pp. 66, 68.)

The theory of using two strings of pipe was that rotary drilling fluid should pass down through the outer string and then move upward in the annular space between it and the well hole, while the testing sample would be entrapped in the inner string. The object was to maintain circulation of the drilling fluid in order to prevent crumbling of the walls of the well, down over the packer, while the test was being made.

The Simmons patent discloses only one string of pipe, just as in Franklin, with no provision for maintaining or reestablishing the circulation of drilling fluid during the testing operation. The absence of a second string of pipe, for circulation, in the Simmons apparatus, was not considered invention in the Fifth Circuit, the Court saying:

“Edwards thought there were advantages in having more than one pipe string, in which he may be wrong, but again in view of the oil well art we do not think that the omission of the Edwards second pipe to maintain circulation can be said to involve such invention as to give a monopoly of all single string testers as is here claimed.”

However, plaintiffs' present commercial device, referred to as the “J-Slot” tool (R. Vol. 1, pp. 172-174), and also defendants' accused tester (R. Vol. 1, pp. 237-239), actually provide for maintaining or reestablishing circulation, if deemed necessary by the operator. True, the provision for circulation is effected by means of a more complicated device with additional valves, and not by a second string of pipe extending to the top of the well hole. But the point is that the ability

to reestablish circulation of drilling fluid is a desirable and indeed a necessary function in the testing apparatus of today. (R. Vol. 1, pp. 527-528, 553, 571.) If the novelty in Simmons is the elimination of circulation, he really made a step backward, rather than forward, because such type of tester, without circulating provision, is not now used.

Halliburton's original application for patent covering the "Stop Cock and Gear" device, filed some nine months after the first Simmons test, showed a two-string tester. (R. Vol. 1, pp. 691-692.)

In exploiting their present J-type testing tool, plaintiffs boast in their advertisements that: "*Circulation can be established whenever necessary without opening tester.*" (R. Vol. 2, p. 315.)

Burr & Wakelee patent No. 68,350 (R. Vol. 2, p. 329) and Lyon patent No. 46,124 (R. Vol. 2, p. 317) show oil well testing devices which, though operating in well fluid, did not maintain circulation. The Cooper and Franklin patents, previously referred to, likewise show devices suitable for testing oil wells, but making no provision for circulation.

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#### FRANKLIN PATENT ALONE A COMPLETE ANTICIPATION.

The Franklin patent, No. 263,330, dated August 29, 1882 (R. Vol. 2, p. 347), discloses every element of the Simmons structure, and while intended as a device for controlling and regulating the flow of oil wells, it can without modification also be successfully used for testing oil wells. That was demonstrated by



# SIMMONS

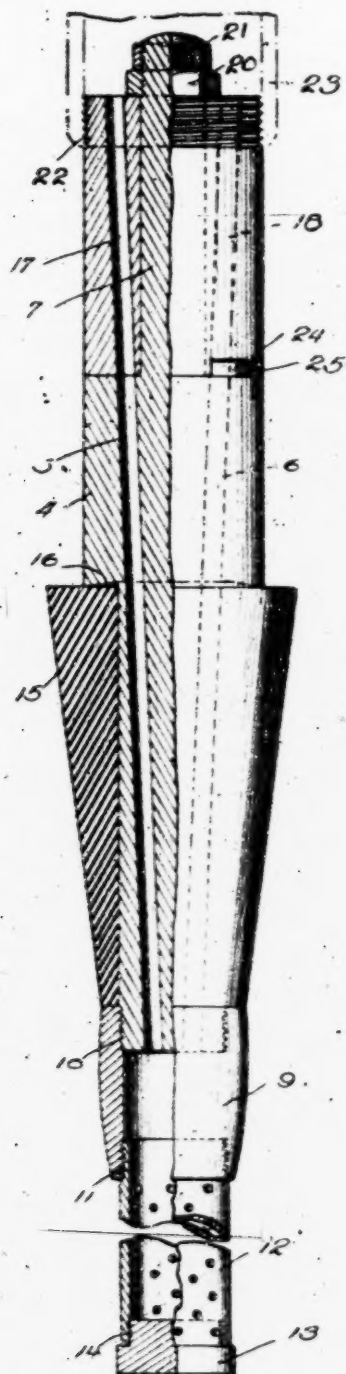


FIG. 1

# FRANKLIN

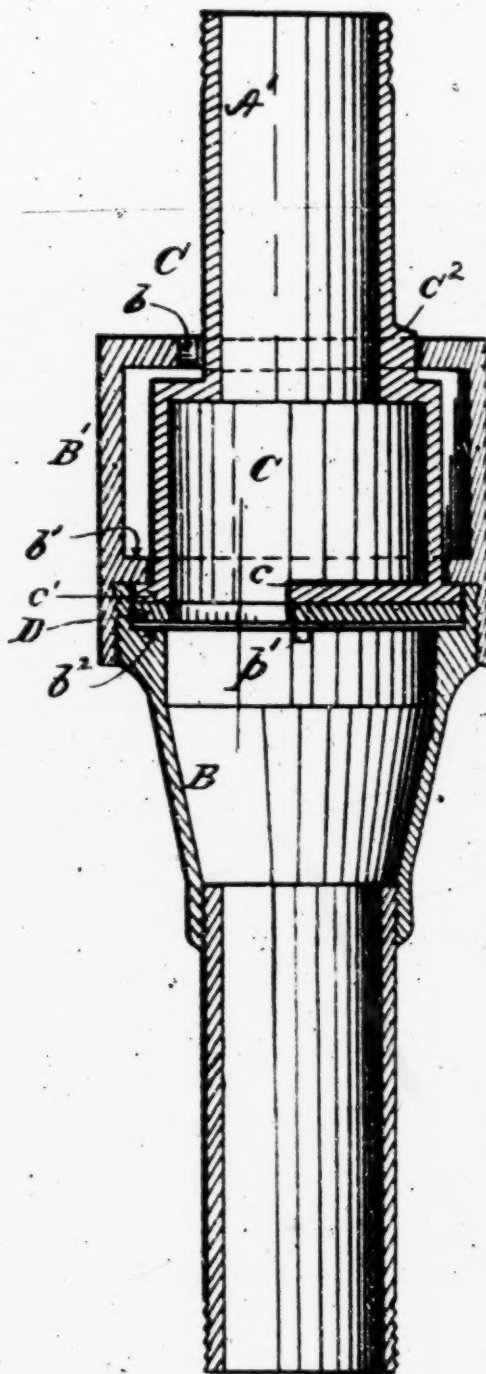


FIG. 2

the actual use in California of a full size Franklin device (Defts. Ex. K<sup>7</sup>) used for testing purposes, which device, the court held, "recovered an entrapped sample". The satisfactory operation was described by the witnesses Howard (R. Vol. 1, pp. 517-526) and Abbett (R. Vol. 1, pp. 358-369) and is evidence in this suit which was not in the previous Fifth Circuit case. A model of Franklin's tool is also in evidence. (Defts. Ex. M.)

The Franklin device, in all essential respects, is the same as that shown in the Simmons patent. For convenience we are placing in juxtaposition on the opposite page, Fig. 1 of the Simmons drawing and Fig. 2 of Franklin. Both show (1) a pipe with an inlet at its lower end and (2) a valve for closing the inlet, two of the three major elements of the claims in issue. Only the (3) packer is not shown in the Franklin drawing, its function being well known at that time, but such packer is included in the combination, as evidenced by the following language of the patent description:

"My invention relates to devices for regulating or controlling the flow of oil-wells; and it consists in providing a device which can be connected with the tubing of the well \* \* \* at a point above the packer \* \* \* (Patent, p. 1, lines 12-17.)

A patentee need not describe that which is well known in the art. He may begin by describing what he has done that is new. "That which is common and well known is as if it were written out in the patent and delineated in the drawings." *Webster Loom Co. v. Higgins*, 105 U.S. 580, 586.



Turning to the knowledge of those skilled in the art at the time of Franklin, we find that packers were already old and well known. Particularly, we point to the various packers shown and described in the reports of John F. Carll (Defts. Ex. I-1, I-2, and I-3), especially the diagram of a flowing well of 1880, Fig. 4 (R. Vol. 2, p. 440), included in the article published by S. F. Peckham, portions of which are in the present record. (Defts. Ex. I-2.)

The Circuit Court of Appeals for the Fifth Circuit says that the Franklin patent mentions a packer and that "one must be used, for without it oil would never flow through the pipe as desired and there could be no use of the valve to control the flow. The packer is necessary to prevent the escape of gas and build up pressure to make the oil flow."

The Circuit Court of Appeals for the Ninth Circuit found that "the Franklin device contemplated the use of a packer below the valve to close the upper part of the casing or well from the lower".

The conclusion is irresistible that Franklin used a packer on the well tubing below the valve, to close the space between the tubing and the walls of the well hole or casing, so as to permit the gas from the producing area below the packer to build up, or, as Franklin says, "for the purpose of allowing the gas to obtain a head" (Patent, p. 1, lines 38-39), whereupon the valve was opened and the oil and gas flowed upward through the tubing. Only by locating the packer on the oil tubing can this effect be obtained. The patent supports no contrary conclusion. Such a packer also serves the purpose of cutting off water or





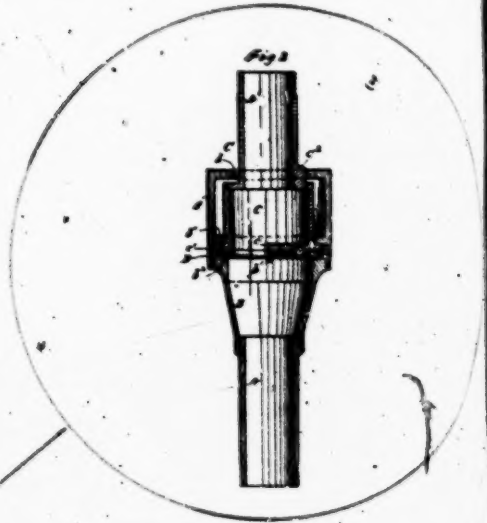
(No Model.)

B. FRANKLIN.

DEVICE FOR CONTROLLING AND REGULATING THE FLOW OF OIL WELLS.

No. 263,330.

Patented Aug. 29, 1882.



dirt above from the oil below, though Franklin does not mention this obvious function.

Finally, 'a packer on the tubing of the Franklin device, below the valve, is an absolute necessity to hold the lower portion against rotation, for opening and closing the valve. The packer, when seated, firmly presses against the walls of the formation, holding the lower valve structure from rotation, thus permitting the upper structure to turn, by manual operation, from the top of the well. The Franklin valve could not be rotated, and the device would be inoperable, if the packer were not located on the tube.

We have, therefore, in the Franklin patent, the combination of three elements making up the Simmons apparatus, to-wit, pipe, packer and valve.

Since the Franklin device, in the words of the patentee, "can be connected with the tubing of the well \* \* \* at a point *above* the packer", we have illustrated on the opposite page the location of such a Franklin valve, connected with the tubing (drill pipe) of a flowing well in the year 1880, for the purpose of controlling or regulating the flow through the tubing or drill pipe.

What new invention is there in the Simmons patent, over the old Franklin valve, inserted on the pipe of a flowing well at a point above the packer, as shown in the illustration and known to the oil well industry over forty years before the Simmons patent application was filed?

The Simmons apparatus is merely the Franklin valve inserted in the old flowing well of 1880.

If it be suggested that Simmons discloses a device for testing an oil well, whereas Franklin shows substantially the same device for regulating and controlling the flow of such a well, the obvious answer is, that it is immaterial for what purpose the device is used, when the apparatus claims are considered. The different names by which a thing is called, whether "tester" or "regulator", should have no effect in distinguishing two mechanical devices, in order to avoid anticipation. *Machine Co. v. Murphy*, 97 U.S. 120, 125; *Brush v. Condit*, 132 U.S. 39, 49.

The testing of an oil well and regulating its flow are in the same art, or are at least in analogous arts, as found by the Appellate Courts below. Testing is merely flowing a well temporarily for obtaining a sample. The quantity of sample depends upon the formation pressure of the selected area, isolated from the remainder of the well. If it is sufficient to completely fill the drill pipe to overflowing, then a flowing well results and the sample can be obtained at the top of the well hole. On the other hand, according to the prior art, if the pressure is insufficient, so that the drill pipe is only partially filled, the valve in the testing device may be closed, and the drill pipe withdrawn, in order to obtain access to the entrapped sample (Cox patent); or the fluid removed by pumping (Cooper and Edwards patents), bailing (Cooper patent), or artificial pressure. (Lyon patent.)

The patent in suit states:

"In the preferred form of the invention, such empty chamber is established extending from

the formation tested to the top of the well, whereby, in certain cases when the cognate fluids of the formation are under sufficient pressure, the well may commence producing through this conduit." (Patent, p. 1, line 109 to p. 2, line 5.) \* \* \*

"It will be obvious that if the pressure of the cognate fluids within the formation is sufficiently high that production may then take place through the casing 23." (Patent, p. 3, lines 80-83.)

The Fifth Circuit Court said that Franklin "expected to get what was below the packer by a natural flow, just as Simmons in his disclosure says it is to be preferred".

The Ninth Circuit Court specifically found that the Franklin device was in "an analogous art".

Franklin, therefore discloses an apparatus which may be used in making an oil well test according to the method preferred by Simmons.

The Franklin device can also be used for entrapping a sample and withdrawing it from the well, according to the second method of Simmons. If those using the Franklin device, desired to make a test, and the pressure underneath was insufficient to cause the formation fluid to flow to the surface, the valve could be closed and the tubing withdrawn. By so doing, whatever fluid there was in the tubing and above the valve, would be a sample and could be tested in precisely the same manner as when the Simmons apparatus is used.

The Franklin valve includes a disk having a half circle opening, attached to the upper valve structure,

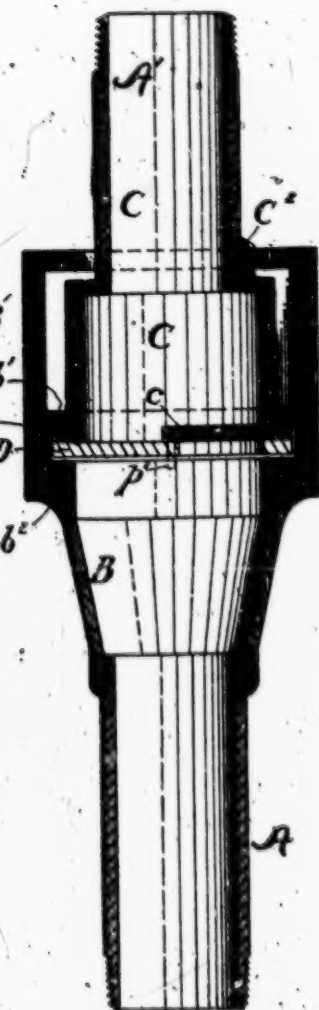
so designed that such opening may register with a corresponding opening in the lower valve structure. The packer on the tubing below the valve, when set, holds the lower valve structure against rotation, so that the upper valve structure may be rotated a half turn in respect to the lower structure, either to open or close the passageway through the two disks. The operation of opening and closing is manually performed at the top of the well hole, the same as in Simmons, by turning the tubing or pipe to which the upper valve structure is attached.

Two forms of lower disk are disclosed in the Franklin patent. The one shown in the patent drawing rests loosely on the shoulder of the lower valve structure. Pins prevent the disk from completely turning around, but permit a slight vertical movement. In the other form, the disk is attached solidly to the lower valve structure.

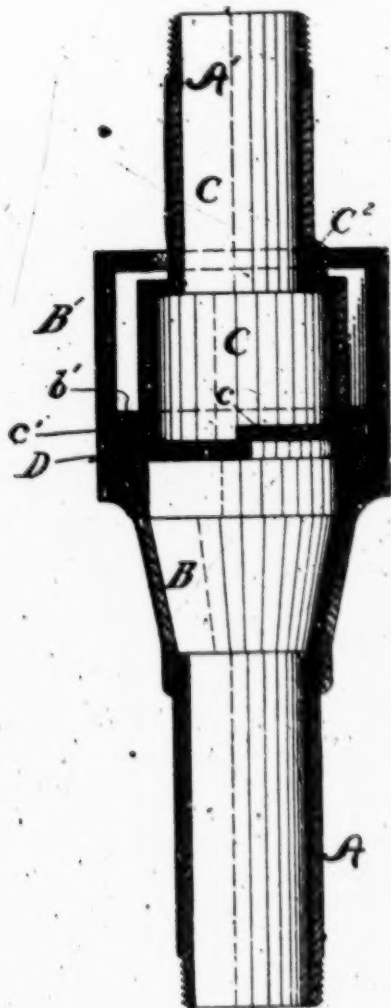
On the opposite page are shown the two valves described by Franklin. We have colored the upper valve structure red and the lower blue. The floating disk, shown in the patent drawing is colored yellow, and because of its "very little play vertically" (Patent, p. 2, line 14), is evidently designed to reduce friction and facilitate rotation. Heavy oil or grease could be inserted between two disks for the same purpose. (R. Vol. 1, pp. 592-594.)

Plaintiffs, in the Courts below, argued that the Franklin device could not retain an entrapped sample, because the floating disk (yellow) of the patent drawing, would cause the valve to leak, and so lose the

PATENT DRAWING



ALTERNATE FORM  
DESCRIBED IN PATENT







Such an argument not only finds no support in the patent itself but is directly contrary to the statements appearing therein.

In the type of valve shown in the patent drawing, the floating disk, forming a part of the lower valve structure, is designed to be held in place against the lower surface of the upper disk, as shown, by reason of the pressure of the gas below the packer when set, or by the hydrostatic pressure of the well fluid when the packer is unseated.

But Franklin, although his drawing shows the floating disk, expressly states that his lower disk may be secured to and become a part of the valve. He did not limit his invention, or its description, to the vertically movable disk.

In describing the operation, Franklin says:

"It will be seen that my device can be operated from the top of the well by turning the tubing, as stated above; that the oil can be shut off by it or allowed to flow at will; that the device can be kept closed while the tubing is being put into the well and then opened, *and can be again closed when the tubing is to be drawn.*" (Patent, p. 2, lines 24-31.)

If the device is operated in the manner intended by Franklin, then the result is inevitable that any fluids which entered the tubing from the formation beneath the packer *would be entrapped* therein and made available to the operator when the device was withdrawn.

In speaking of a certain brittle disk, used in the

keeping the tubing closed while drawing it", and adds:

"there is no device to my knowledge, except my own, which will *close* the tubing while it is being *drawn*." (Patent, p. 1, lines 33-35.)

Elsewhere in the patent, Franklin says that the valve "can be opened or closed" (p. 1, line 18); that there will be "no leak" (p. 2, line 21); that the flow can be "shut off" (p. 2, line 26) and the valve constructed to "open or close". (p. 2, line 45.) This language all indicates that it was actually Franklin's intention to close the valve while the tubing was withdrawn, if used for testing and not to partially close it, so that the valve would leak and the sample be lost. While he does not mention an entrapped sample, such sample would inevitably result when the device, if used as a tester, is raised from the well with the valve closed.

Moreover, the Franklin tool (Defts. Ex. K), built and operated in the California oil-field for testing purposes, actually recovered an entrapped sample. (R. Vol. 1, pp. 517-526; 358-369.)

True, the Circuit Court of Appeals for the Fifth Circuit, not having before it evidence of the successful operation of the Franklin device, thought that the valve would leak when withdrawn from the well, but added that there would be no invention "to substitute a valve that would not leak for the one that does leak on withdrawal". In the present suit, however, the Ninth Circuit Court, on further evidence of the successful operation of the Franklin device as a tester,

found that the valve "did not leak". Agreeing with the Fifth Circuit decision, the Court adds that "it does not involve invention to tighten what would otherwise be a leaky valve".

The drilling of deep wells by the rotary method has come into extensive use only during the present century, and so Franklin does not mention drilling fluid, or rotary mud, as we know it today. But even under the present rotary method, the consistency of the drilling fluid varies, and sometimes oil, instead of mud, is used. (R. Vol. 1, pp. 685-686.) There was, however, in the days of Franklin, the likelihood of fluids in the well and above the packer, as shown in the Chamberlin report, Fig. 30. (R. Vol. 2, p. 446.) The original use of a packer, particularly on the tubing, was to prevent surface water from passing down into the oil formation, and thus create a hydrostatic head which would prevent the flow of oil into the tubing, as disclosed in the Carll Report. (R. Vol. 2, pp. 409-410; 415-417.)

Halliburton, one of the plaintiffs, in the dual position of patent owner and expert witness, testified that if the Franklin device were equipped with a packer and used to test the formation in accordance with the patent in suit, it would infringe the latter. (R. Vol. 1, pp. 687-688.) This is equivalent to an admission that the Franklin patent alone, fully anticipates the patent in suit. *Knapp v. Morss*, 150 U.S. 221, 228, 14 S. Ct. 81, and cases there cited.

Finally, the Appellate Court below said:

"We conclude that the apparatus claims of the patent in suit were anticipated by the patent to Franklin."

The conclusion, fully supported by the prior art and testimony of witnesses, not in conflict with the decision in the Fifth Circuit, we submit, is correct, and should not be disturbed. *General Talking Pictures Corp. v. Western Electric Co.*, 304 U.S. 175, 58 S. Ct. 849, 851.

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#### CASING AND FORMATION TESTS.

Before examining the Simmons method claims, it is important to understand the purpose and manner in which defendants' apparatus is used.

Two types of tests are made with both plaintiffs' and defendants' commercial devices as they are used in the oil fields today. One is commonly termed a "casing" test and the other a "formation" test. About one-third of the accused tests are casing, and two-thirds are formation tests. (R. Vol. 1, p. 215.)

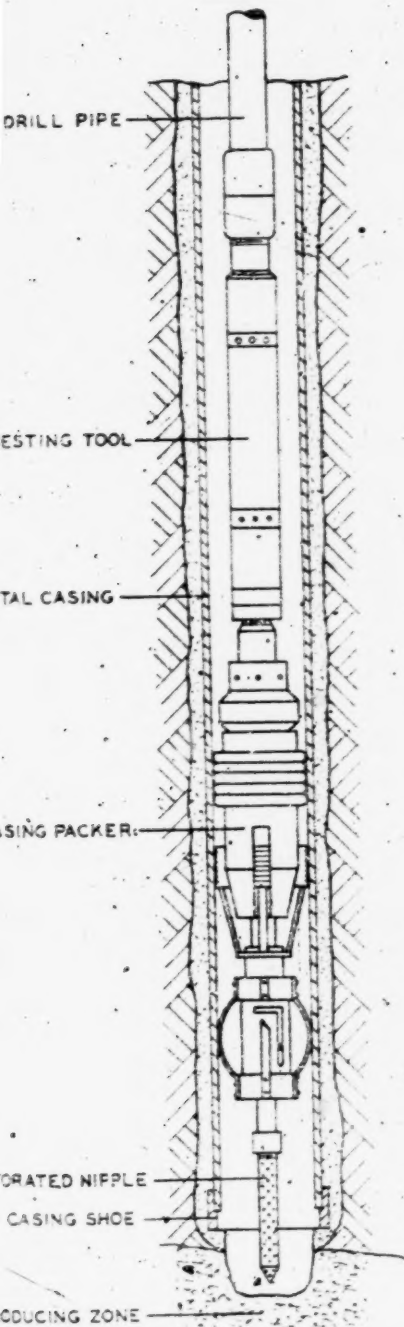
The primary difference between a casing and a formation test is that in the former the packer is set against the interior walls of a metal casing; whereas in the latter the packer is usually seated on top of the "rat hole", as shown in the Simmons patent, but occasionally against the walls of the open hole or formation.

To illustrate these different tests we have reproduced on the opposite page three figures from De-

# HALLIBURTON OIL WELL CEMENTING CO.

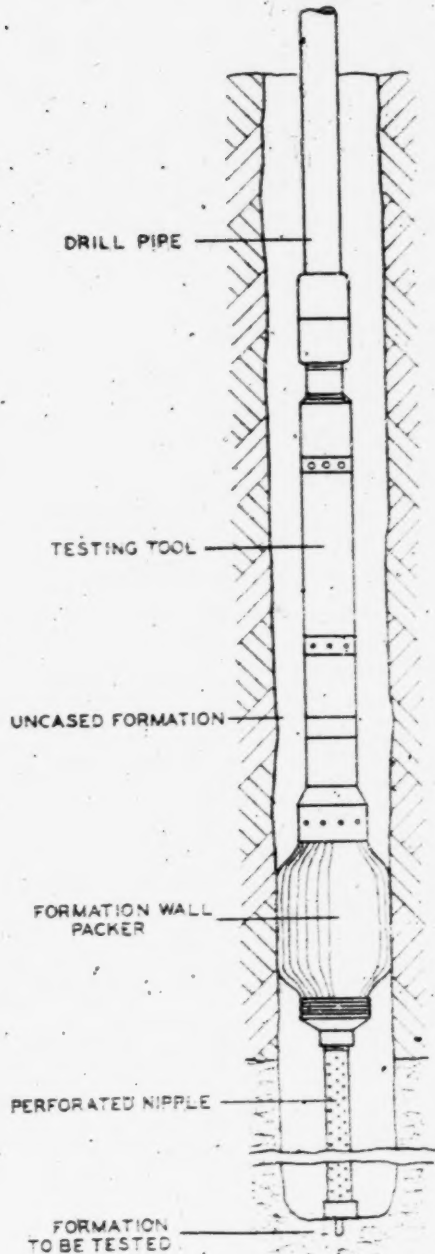
## TESTING SERVICE

FIG. 1



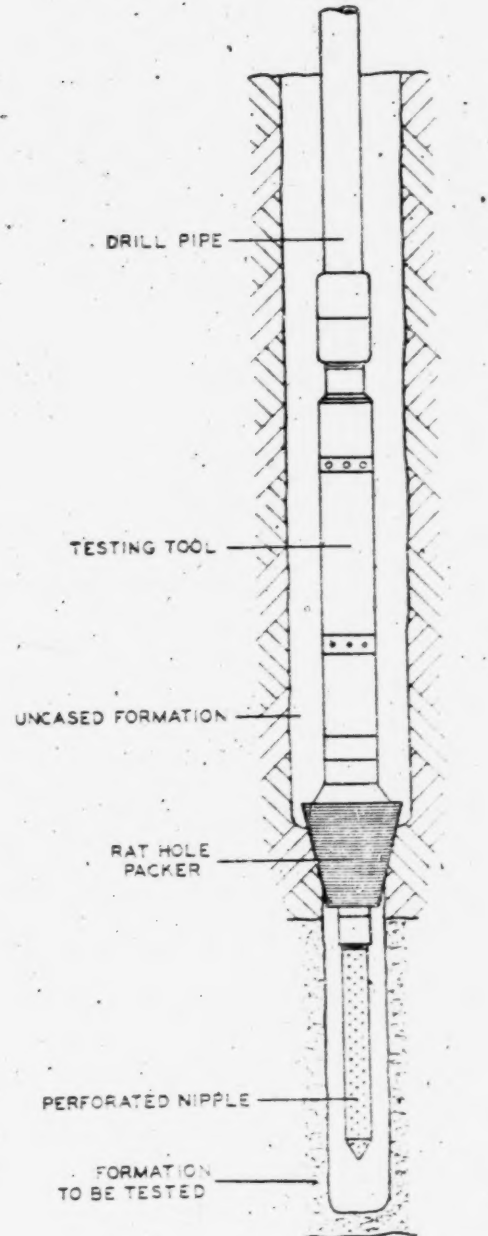
CASING TEST  
WATER SHUT-OFF

FIG. 2



FORMATION TEST  
WALL PACKER TYPE

FIG. 3



FORMATION TEST  
CONE PACKER TYPE





fendants' Exhibit C, showing the use of plaintiffs' Halliburton tester, alleged to be the present commercial embodiment of the patented invention. The defendant Johnston's accused testers, in structure and operation, are different from those in the patent drawing but similar to plaintiffs' devices shown in the illustration. The accused testers and their manner of operation appear in the record. (R. Vol. 2, pp. 226, 227.)

In the illustration, Fig. 1 represents a casing test, or, as it is sometimes called, a "water shut-off" test. It will be noted that the metal casing extends upward from the producing zone, the packer forming a seal against the casing and not the formation. Normally the casing is not set or cemented in a well until something is found that appears of value. However, "a casing is at times set where a hole is not standing up too well, and it is caving some". (R. Vol. 1, p. 268.) The casing protects the wall of the hole. The object of making a "water shut-off" casing test is to demonstrate that no fluid can come down around the outside of the casing, past the cemented portion, and into the uncased portion of the formation below the casing. It is not the purpose of a water shut-off test to determine the productivity of the formation (R. Vol. 1, p. 519) but rather to ascertain whether the casing shoe leaks.

Fig. 2 and Fig. 3 represent a formation test, the former showing the use of a "wall" packer and the latter a so-called "rat hole" packer. Both these packers press against the walls of the formation or

open well hole which distinguishes them from the packer in Fig. 1. The purpose of making a formation test is to obtain samples for determining the course further drilling; if any, should take and whether casing should be set. (R. Vol. 1, p. 552.)

The difference between a casing test, in which the testing device is lowered through a string of casing, supporting the well hole, and a formation test, in which the device is lowered through an open hole, is important for the reason that the Circuit Court of Appeals in the present case seemed to find novelty in the two method claims because the testing apparatus could be safely lowered through the fluid in an uncased well and "that it was not necessary to set the casing permanently and bail out the drilling fluid", as had been done in the prior art, in order to make a test.

One reason for using drilling fluid in rotary drilling is to keep its hydrostatic pressure against the walls of the hole so as to prevent the formation from caving in or being blown in by gas. The specific gravity of such fluid is in excess of water and it will therefore balance the pressure of any water which, for example, might seek to penetrate into the well hole. It also tends to plaster mud against the exposed face of the formation. Circulation of the drilling fluid, while making tests in open formations, was thought by some prior patentees to be beneficial.

If the novelty in the patented method rests upon the elimination of a casing between the packer seat and the top of the well and substituting the sustaining

qualities of heavy rotary mud instead of the metal casing, then so-called casing or water shut-off tests do not employ such novelty, and no infringement exists in respect to those tests. Moreover, if the alleged field of invention is restricted to formation tests alone, and excludes tests where the packer is set within the casing, then lack of patentable invention in the method is at once apparent.

Turning to the patent in suit, we find that it is expressly limited to formation tests where the packer is set against the formation and not against a casing, as is apparent from the title, the written description, and each of the claims, both apparatus and method. Apparatus claim 9, for example, as well as most of the other claims in issue, includes as an element "a packer adapted to be positively pressed against the walls of the formation". Method claims 8 and 18, in the introductory phrase, say that they cover "a method of testing the productivity of a formation". Indeed, on December 16, 1929, nearly four years after the patent application was filed, applicant, in order to overcome a last rejection on Halliday patents Nos. 1,474,630 and 1,510,669 (Defts. Ex. H-14, H-15), amended fourteen claims by inserting the express limitation language, "a packer adapted to be positively pressed against the walls of the formation" in the claims, and they must now be construed in that restricted manner, if valid at all. (File wrapper, R. Vol. 2, pp. 104-106.) Each of the ten apparatus claims here in suit includes the limitation that the packer (sealing means) is adapted to be "positively pressed against the walls of the formation" to seal the same. The

Halliday patents showed a packer pressing against the inner walls of an oil well casing (No. 1,474,630, Figs. 1 and 2; No. 1,510,669, Fig. 1) and the Simmons claims were especially narrowed and restricted to avoid those references.

Whether the Patent Office was right or wrong in rejecting the claims, is immaterial. If dissatisfied with the rejection, the applicant should have pursued his remedy by appeal; and where, in order to get his patent, he accepts one with narrower claims, he is bound by it. *Shepard v. Carrigan*, 116 U.S. 593, 597; *Hubbell v. United States*, 179 U.S. 77, 83.

In considering a similar situation, this Court said:

"The applicant having limited his claim by amendment and accepted a patent, brings himself within the rules that if the claim to a combination be restricted to specified elements, all must be regarded as material, and that limitations imposed by the inventor, especially such as were introduced into an application after it had been persistently rejected, must be strictly construed against the inventor and looked upon as disclaimers. (Citing cases.) \* \* \* The patentee is thereafter estopped to claim the benefit of his rejected claim or such a construction of his amended claim as would be equivalent thereto. (Citing cases.)" *Smith v. Magic City Kennel Club*, 282 U.S. 784, 790, 51 S. Ct. 291.

Simmons was required by the Patent Office to abandon casing packers, necessary to make so-called casing or water shut-off tests, and hence the Simmons

patent claims cannot now be extended to cover the use of such packers. Indeed, Simmons makes no reference whatever in his patent to any type of test other than a formation test, and there is not the remotest suggestion that a "wall" packer instead of a "rat hole" packer may be used.

It will be seen from our discussion of the method claims that seating a packer against the casing wall, as distinguished from the formation wall, is precisely contrary to the theory on which the Ninth Circuit Court of Appeals apparently found invention in the method.

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#### ASSIGNMENTS OF ERROR DISCUSSED.

We shall now take up in detail the errors in the opinion of the Circuit Court of Appeals for the Ninth Circuit, respecting the two method claims.

1. The method claims merely describe the function of an apparatus designed and intended for a particular use.

The function or effect of an apparatus is not patentable as a process. That rule of patent law, affirmed and reaffirmed by this Court, is not now open to serious doubt. This Court said:

"It is undoubtedly true, and all the cases agree, that the mere function or effect of the operation of a machine cannot be the subject matter of a lawful patent." *Expanded Metal Co. v. Bradford*, 214 U.S. 366, 29 S. Ct. 652.

Other cases are:

*Corning v. Burden*, 56 U.S. 252, 268;

*Risdon Iron & Locomotive Works v. Medart*,  
158 U.S. 68, 77, 15 S. Ct. 745;

*Westinghouse v. Boyden Power Brake Co.*, 170  
U.S. 537, 557, 18 S. Ct. 707.

In order to provide a convenient basis for the study of the method claims, they have been reduced to their component parts and are here presented in parallel arrangement with two mechanical claims, so that the identical subject matter may easily be recognized in method and apparatus claims.

For the purpose of further comparison, the mechanical limitations in the method claims are set forth in italics, corresponding with similar mechanical elements in the apparatus claims.

8.

**(Valid method claim.)**

A method of testing the productivity of a formation encountered in a well containing drilling fluid, which includes lowering *an empty string of pipe* into the well through the drilling fluid to adjacent the formation,

*the pipe* carrying a packer

and having a *valved inlet* at its lower end which is closed while *the pipe* is being lowered,

setting *the packer* above the formation to seal off the drilling fluid from the formation,

13.

**(Invalid apparatus claim.)**

Apparatus for testing the productivity of a formation encountered in a well containing drilling fluid, which includes

*an empty string of pipe* to be lowered into the well to adjacent the formation to be tested,

*a packer* carried by *the pipe*

[*the packer*] adapted to be positively pressed against the walls of the formation to seal off the same,



opening the *valved inlet* after the *packer*, is set to permit cognate fluid from the formation to enter the *pipe*,

closing the *valved inlet* against the entrance of fluid from the well by movement of the *pipe*, raising the *pipe* so closed to remove an entrapped sample and the *packer* from the well.

means at the lower end of the *pipe* to receive a sample from the formation including an *inlet opening* into the *pipe* and a *valve structure* for controlling the inlet,

the *valve structure* including a plurality of relatively movable parts one of which is secured to the *pipe* and another of which is connected to the *packer*.

A comparative analysis of claims 18 and 19 presents a more striking parallel:

18.

**(Valid method claim.)**

A method of testing the productivity of a formation encountered in a well containing drilling fluid involving

the insertion of *only a single string of pipe* into the well to make a test,

which includes lowering a *test string* into the well through the drilling fluid

with a *packer* carried by the *string*

and a *valve inlet* at the lower end of the *string* closed against the entrance of fluid from the well;

19.

**(Invalid apparatus claim.)**

An apparatus for testing the productivity of a formation in a well containing drilling fluid, comprising

a *string of pipe*

[a *string of pipe*] to be lowered into the well through the drilling fluid to adjacent the formation \* \* \* and to be raised out of the well to remove the entrapped sample. \* \* \*

a *packer* carried by the *pipe* as the *pipe* is lowered into the well

an *inlet* to the *pipe* communicating with the well below the point at which the *packer* seals off the well.



setting *the packer* above the formation . . .

[*the packer* is] adapted to be seated by manipulation of *the pipe* to seal off the well above the formation, *said packer* adapted to be positively pressed against the walls of the formation to seal off the same,

closing *the valve* to prevent the subsequent entrance of fluid from the well through *the inlet* and releasing *the packer*, and raising the test string with the inlet closed against entrance of fluid from the well to remove an entrapped sample.

and means for controlling *the inlet* to permit fluid from the formation to enter *the pipe* while *the packer* is set and to prevent fluid from entering *the pipe* after *the packer* is released, and *the pipe* is being raised out of the well [to remove the entrapped sample].

The two method claims held valid in the present case merely describe the function or effect of the operation of a device, which device is itself old, and open to the public to use. They fall within the condemnation of the doctrine that a patentee may not broaden his apparatus claims by describing them in terms of function, so as to monopolize the use of any form of testing tool.

Remembering that the Simmons apparatus (also Franklin) consists of the combination of pipe, packer, and valve, adapted to be lowered in a well hole, we find the function, or manner of using such apparatus, completely described in method claim 8, the steps of the so-called method, being as follows:

A method of testing the productivity of a formation consisting of:

- (1) "lowering an empty string of pipe"
- (2) "setting the packer"

(3) "*opening the valved inlet*"

(4) "*closing the valved inlet*"

(5) "*raising the pipe, so closed, to remove an entrapped sample and the packer from the well*".

Lowering of the pipe, setting the packer, opening the valve, closing the valve and raising the pipe, is the manner in which the Simmons device (pipe, packer and valve) was intended to operate and be used.

A person using the Simmons device of the invalid apparatus claims, for the very purpose for which it was designed and intended to be used, would of necessity, practice the so-called method of claims 8 and 18.

The unparalleled situation results that the public can make and sell the Simmons device, because the apparatus claims are anticipated, and therefore invalid, but the public cannot actually use the device, for the very purpose and in the precise manner for which it was constructed and intended to be used, because such use would be an infringement of so-called valid method claims.

A patentee should not be given a monopoly on the use of an old device. To do so would be repugnant to the theory upon which our patent system is grounded, namely, to encourage invention so the public may ultimately be benefited, rather than to throttle industry by creating an obnoxious monopoly.

It is impossible for us to perceive how the so-called process can be considered in any other light than as the mere function of the apparatus. The only way shown or described in the patent, for practicing the so-called

method, is to use the particular device covered by the apparatus claims.

The Court below, dismissed our argument regarding the invalidity of the method claims by saying:

"The process in suit is not the function of a machine; it requires manual operation."

The work done with hands, was lowering and raising the device on the end of the drill pipe, like any other well drilling tool, so as to put it in a position where it would function. Opening and closing the valve was the manner in which the apparatus was intended to operate.

But the same kind of manual operation was required with the old Franklin device when it was lowered into a well hole and the pipe rotated to open or close its valve. In describing the Franklin patent, the Court correctly said that:

"The device disclosed by this patent is a valve connected with a well tubing, or pipe, constructed to be placed in a well and *operated manually* to regulate the flow of the well."

If Franklin disclosed a "manual operation", as specifically found, how can the same "manual operation" in Simmons constitute invention? Indeed, every apparatus or machine requires some manual operation in order to accomplish its intended purpose. It cannot be the law that any and every device requiring manual operation may be the subject of a process patent.

The effect of manually operating of the Simmons device in the intended manner is to make an oil well

test. The method is, in reality, nothing more than the use of apparatus, which is itself incapable of valid patent claims.

2. The method claims lack invention over Franklin Patent No. 263,330, in view of the prior art.

Although the Court held that the Franklin device anticipated the apparatus claims of the plaintiffs' patent, "and could be used in carrying out the patented process", still that, according to the opinion, did not negative invention as to the method claims, for the reason that "the apparatus used in carrying out a process may be old and yet the process valid". *Expanded Metal Co. v. Bradford*, 214 U.S. 366, 29 S. Ct. 652, and *Carnegie Steel Co. v. Cambria Iron Co.*, 185 U.S. 403, 22 S. Ct. 698, are cited as authorities.

The rule of this Court that an apparatus used in carrying out a process or method may be old, and yet the process valid, is subject to the exception that if the process is the mere function of an apparatus, another apparatus capable of performing the same function would be an anticipation.

The *Expanded Metal* case, *supra*, related to a method of making open metal work, by performing certain mechanical operations on sheet metal. In sustaining the validity of the method claims, this Court found that the mechanical operations must not be merely the obvious, inherent or necessary mode of operation of the machine.

In the *Carnegie Steel* case, *supra*, one of the most frequently cited and best considered patent opinions of this Court, a process for mixing pig iron was in-

volved. While the Court held that such mixing process was not anticipated by earlier mechanism disclosed in a prior patent, still this Court clearly recognized the rule that the function or operative effect of a machine is not patentable. An earlier machine patent could anticipate a subsequent process, if such process was the function or operative effect of the machine. The Court use the following language, appearing at page 425:

“True, if the process were the mere function of a machine, another machine capable of performing the same function might be an anticipation; but this is not because a process can be anticipated by a mechanism, but because, as we have held in several cases, the mere function of a machine is not patentable as a process at all.” Citing *Corning v. Burden*, 15 How. 252; *Risdon Locomotive Works v. Medart*, supra, 158 U.S. 68. 15 S. Ct. 745.

That is precisely the situation here. Since the Appellate Court below found that the early Franklin device “could be used in carrying out the patented process”, in the language of the last quoted decision, it would be “another machine capable of performing the same function”, and therefore an anticipation of such process.

The necessary and intended method of using the old Franklin tool is precisely the same as the process steps of Simmons’ claims 8 and 18, except that the introductory clauses of these claims specify a method of “testing”, whereas Franklin makes no mention of such use. The result of the Simmons method, “removing an entrapped sample”, is the identical result attained by

Franklin, when his device was raised from the well hole, as he intended to raise it, with the valve closed. The Franklin patent, alone, is a complete anticipation.

3. The method claims describe, at most, only a different use for the old device disclosed in the Franklin patent, which different use is itself old.

The new use of an old apparatus is not invention. That pronouncement has been made, many times, by this Court, as, for example:

“It is settled by many decisions of this Court, which it is unnecessary to quote from or refer to in detail, that the application of an old process or machine to a similar or analogous subject, with no change in the manner of application, and no result substantially distinct in its nature, will not sustain a patent, even if the new form of result has not before been contemplated.” (Citing cases.) *Pennsylvania R. R. v. Locomotive Truck Co.*, 110 U.S. 490, 494.

“It is no new invention to use an old machine for a new purpose. The inventor of a machine is entitled to the benefit of all the uses to which it can be put, no matter whether he had conceived the idea of the use or not.” *Roberts v. Ryer*, 91 U.S. 150, 157.

Other cases are:

*Brown v. Piper*, 91 U.S. 37;

*Blake v. San Francisco*, 113 U.S. 679, 5 S. Ct. 692;

*Ansonia Brass and Copper Co. v. Electrical Supply Co.*, 144 U.S. 11, 17, 12 S. Ct. 601;

*Lovell Mfg. Co. v. Cary*, 147 U.S. 623, 637, 13 S. Ct. 472;

*Knapp v. Morss*, 150 U.S. 221, 228, 14 S. Ct. 81;  
*Powers-Kennedy Contracting Corp. v. Concrete  
 Mixing and Conveying Co.*, 282 U.S. 175, 51  
 S. Ct. 95;  
*Paramount Publix v. American Tri-Ergon  
 Corp.*, 294 U.S. 464, 55 S. Ct. 449.

Where it required no change in the old device to adapt it to a new use, such adaptation cannot be the subject matter of valid method claims; otherwise, if the device were separately patented, the right of the prior patentee is invaded by excluding him from the use of an apparatus which, by the above rule and authorities, he is exclusively entitled to enjoy.

When the Franklin patent expired in the year 1899, the public was entitled to use that device for any purpose to which it could be put. To enjoin its use for well testing purposes, under the guise of valid method claims to Simmons, would, in effect, be extending the term of the Franklin patent approximately 68 years, in favor of a mere appropriator, instead of the 17 years allowed by statute.

Simmons made no changes in structure over Franklin, necessary to adapt the device to testing by entrapping a sample instead of otherwise regulating the well flow. According to long established principles he is not entitled to a patent merely for suggesting the application of the old Franklin device to a new or different use.

The double use of the old Franklin device is not patentable merely because Simmons intended to lower it through rotary drilling fluid, instead of the well



fluid present in the days of Franklin. That is only a difference in the specific gravity of the fluid and a change of environment, if change at all, in which the device was to operate. It necessitated no variation in either the structure or manner of operation from that disclosed by Franklin.

Finally, the use of a device for testing the productivity of a well hole is, in itself, very old in the art. The Lyon patent, No. 46,124, of 1865; and Burr & Wakelee patent, No. 68,350, of 1867, show devices for testing well strata fluids; and Cox patent, No. 1,347,534, and Edwards patent, No. 1,514,585, issued before Simmons filed his application, show testers for entrapping a sample from deep rotary drilled wells.

4. **The method claims depend for their novelty upon mechanical limitations, expressly placed there to avoid the prior art.**

The file wrapper of the Simmons patent shows that as originally filed the application did not include method claims. They were added in an amendment, dated March 9, 1926 (R. Vol. 2, pp. 29-48), when four were inserted, of which the following is an example:

“9. A method of testing the productivity of a formation in a well, which comprises lowering to the formation an empty conduit, sealing off from the formation the hydraulic pressure of the fluid within the well, permitting the cognate liquids of the formation to discharge into said conduit, closing the conduit against the entrance of outside fluid, and removing the conduit with such liquids to the top of the well.” (R. Vol. 2, p. 42.)

All four claims were at first correctly rejected by the Patent Office “as being improper method claims, in

that they merely set forth the functions of applicant's device". (R. Vol. 2, p. 50.) The method claims were rewritten (R. Vol. 2, pp. 54-55), but again rejected by the Patent Office on Edwards patent No. 1,514,585 and Cox patent No. 1,347,534. (R. Vol. 2, p. 66.) They were then cancelled and three new method claims substituted (R. Vol. 2, pp. 68-69), one being claim 8 now in suit. Applicant argued that the reworded claims were structurally different from Edwards and Cox. By a subsequent amendment two of the three method claims were cancelled and what is now claim 18 of the patent was substituted (R. Vol. 2, p. 97) and the Patent Office was persuaded to allow the two method claims in suit.

In other words, the file wrapper demonstrates that the two method claims survived the prior art only because they differed *structurally* from the Cox and Edwards disclosures, particularly in that the rewritten claims embodied a single empty string of pipe rather than the double string of the two patentees. Applicant argued that such mechanical limitations, deliberately placed in the claims, made them patentable over the state of the art.

A mechanical limitation in method claims renders such claims invalid, if the only novelty is the mechanical limitation. To be patentable, a method must be independent of the function or utility of any particular piece of apparatus. *Tilghman v. Proctor*, 102 U.S. 707, 722. Improving or changing the apparatus used to accomplish a result, is not inventing a method. *Dreyfus v. Searle*, 124 U.S. 60, 8 S. Ct. 417. A structural limitation, necessary for performing the process.

is out of place in the Simmons method claims, for it makes those claims equivalent in substance to the apparatus claims of the same patent. The Patent Office has consistently held that patentable novelty in method claims cannot be based on positive recitations of structural limitations included therein. *In re Fessenden*, 1916 C.D. 172, 45 App. D. C. 21, 26; *Ex parte Foreman*, 1924 C.D. 47, 48.

In our parallel arrangement of claims, commencing on page 38 herein, we have italicized all the mechanical elements of the two method claims corresponding with equivalent elements in the apparatus claims.

Taking then, from the method claims here involved, the matter which describes the machine used; that is, the mechanical or structural limitations, we find that the process is the same old process used by Cox and Edwards of lowering a pipe or test tube through the drilling or other fluid of the well, sealing off the formation to be tested from other areas, opening the pipe to permit the fluids from the formation to enter, closing the pipe and withdrawing the entrapped sample.

The novelty of a process must reside in the thing done to the material operated upon and not in the mechanical means used to perform such process. That was recently emphasized by this Court in *Smith v. Hall*, 301 U.S. 216, 57 S. Ct. 711, involving a method of staged incubation of eggs. The same patent had been before the Court in *Smith v. Snow*, 294 U.S. 1, 55 S. Ct. 279, and *Waxham v. Smith*, 294 U.S. 20, 55 S. Ct. 277. A prior use by Hastings, was before the

Court in *Smith v. Hall*, supra, which had not been considered in the two earlier cases. This prior use was sought to be differentiated from the process patent in suit upon the ground that a large number of compartments had been used and the eggs placed first in one compartment and then in another, and that doors controlled the temperatures in the different compartments. These mechanical elements were not present in the device used to illustrate the method of the patent. The Court, however, pointed out that the tendency of the operation was to carry heat units from the more advanced to the less advanced eggs which was, in part, the novelty of the incubation method patented. In holding that the novelty of the method resided in the steps taken, and not the mechanical means used, this Court said in *Smith v. Hall*, supra:

"The patent was sustained in the Snow and Waxham Cases, supra, only by establishing that neither the arrangement of the eggs, nor the particular order in which the propelled current should reach the eggs, nor the manner in which it was guided or controlled, is part of the patent claimed \* \* \* It was the method thus defined which Hastings used, regardless of the particular structure which he devised to guide and control the current of air in his incubator, or the order in which it came into contact with the heater and eggs of different stages. It is immaterial that his structure for using the method was neither the best possible nor as skilfully designed or used as that later employed by Smith." (Citing cases.)

See also:

*Marchand v. Emken*, 132 U.S. 195, 10 S. Ct. 65.

Thus in the instant case, it is immaterial so far as any method is concerned, whether the Cox patent, No. 1,347,534, disclosed the method practiced under the most favorable conditions, had the best type of valve for entrapping a sample, or utilized a second string of pipe for circulating drilling fluid. Even though the Cox apparatus was less efficient than that of Simmons, the method nevertheless remained the same.

Cox tested a well drilled under the rotary system by lowering an empty test tube through drilling fluid to the formation to be tested, and isolating that area, by means of a packer, from the fluid above. He opened his test tube and the fluid from the formation, if any, entered it. Then by using his flap valve, the sample was retained in the test tube, and raised to the surface of the ground. If that was a patentable method of testing wells, then it is utterly immaterial what kind of apparatus or machinery was used. The Cox device may not have been the best, and the earlier Franklin valve, rather than the Cox flap valve and brittle disk, might have been more efficient. But that has nothing to do with the method itself.

In conjunction with the Cox method for testing a well, he supported the well walls by circulating mud-laden fluid. To that end he provided a second string of pipe, surrounding the test tube, through which the fluid might be pumped and circulated, but such circulation had nothing to do with making the test. It was a safety measure in common use to protect the well bore. Invention in the patented method is sought to be sustained upon the theory that supporting the well bore was not utilized by Simmons. But it must be

apparent that merely by not combining the testing of a well with sustaining its walls, no novelty can be imparted to the testing method. Laying aside all special apparatus, the Simmons method is identical with that previously disclosed by Cox.

We have considered the method of the Cox patent at some length, but substantially the same argument applies to Edwards patent No. 1,514,585. Whatever patentable novelty there could have been in Simmons, consisted wholly in the apparatus used, as an improvement over that shown in Cox and Edwards, but even such improvement had previously been disclosed by Franklin.

The two method claims are invalid for the reason that they include mechanical limitations, expressly inserted therein to avoid the prior art which disclosed the same method that Simmons sought to patent. Without such limitations the alleged method lacked invention over the Cox and Edwards patents.

5. The method claims are not the subject matter of patent protection at all.

The two method claims are invalid because they do not relate to a tangible product or subject matter which is changed in some useful manner, and for that reason are not capable of patent protection, as a method, at all.

A method, as such, is not made the subject of a patent.\* It is included under the general term "use-

\* R. S. §4886 (35 U.S.C.A. 31) reads in part, as follows:

"Any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvements thereof \* \* \* may \* \* \* obtain a patent therefor."



ful art". *Corning v. Burden*, 15 How. 252, 267; *The Telephone Cases*, 126 U.S. 1, 533, 8 S. Ct. 778.

A machine or apparatus is a thing, visible to the eye; a process is a conception of the mind, seen only by its effects, when being performed. To be patentable, this Court pointed out, a process must be independent of any machine:

"As, for instance, A has discovered that by exposing india-rubber to a certain degree of heat, in mixture or connection with certain metallic salts, he can produce a valuable product or manufacture: he is entitled to a patent for his discovery, as a process or improvement in the art irrespective of any machine or mechanical device. B, on the contrary, may invent a new furnace, or stove, or steam apparatus, by which this process may be carried on with much saving of labor and expense of fuel, and he will be entitled to a patent for his machine as an improvement in the art". *Tilghman v. Proctor*, 102 U.S. 707, 723, quoting from *Corning v. Burden*, supra.

The rule for determining a process has been many times stated by this Court.

"A process is a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state or thing." *Cochrane v. Deener*, 94 U.S. 780, 788.

Also:

*New Process Fermentation Co. v. Maus*, 122 U.S. 413, 418, 7 S. Ct. 1304;

*Risdon Iron and Locomotive Works v. Medart*, 158 U.S. 68, 15 S. Ct. 745;



*Holland Furniture Co. v. Perkins Glue Co.*,  
277 U.S. 245, 255, 48 S. Ct. 474.

Not every method is patentable as a process. Under the established definition (*Cochrane v. Deener*; supra, and other cases cited) there must be a tangible product or a change in character or quality brought about.

A series of steps, which does not change the physical character or condition of the object operated upon, does not constitute a patentable method. Thus, for example, a method of moving an object from one place or another, or causing it to emit a sound, or to reflect a ray of light, yet leaving it in the same form, color, composition and physical condition that it possessed before, would not be patentable as a process. In the language of the patent law, it is not an "art".

From this it follows that the function or operative effect of an apparatus is not a process at all, and therefore not patentable. The operation of an oil well testing device, which merely entraps and brings to the top of the well a sample of the fluid at the bottom of the well, and changes nothing except the location of that sample, is really not a patentable process at all. The method claims are invalid for that reason alone.

6. The claims are not infringed, even though valid, because defendants employ a structure and mode of operation different from that disclosed in the patent in suit.

Since both the apparatus and method claims are now before this Court, we will consider them together

under this heading. The rule for determining infringement of method claims is the same as for apparatus claims; especially when, as here, the asserted novelty is due to the mechanical limitation appearing therein.

In view of the prior art heretofore discussed, it must be obvious that, as specifically held by the Fifth Circuit Court, Simmons was not a pioneer inventor nor indeed, any other kind of an inventor. A pioneer inventor is entitled to broad patent protection; but the record here affords no ground whatever for the contention that Simmons occupies any such position. The various patents introduced in evidence as a part of the prior art, show beyond doubt that if the Simmons patent is valid at all, it is merely an improvement, for which reason the claims should receive a narrow construction, and the patent limited to the precise device therein described. It cannot, by a sweeping interpretation of the language of the claims, be extended to cover all forms of testing tools, no matter how constructed or operated. Simmons did not invent the Johnston tool, which is covered by its own patents. (R. Vol. 2, pp. 448-479.)

Defendants' device shows a substantially different mode of operation (R. Vol. 1, pp. 220-276) from that disclosed in the Simmons patent. In *Cimiotti Unhairing Co. v. American Fur Ref. Co.*, 198 U.S. 399, 414, 25 S. Ct. 697, it is said that if defendant's device shows a substantially different mode of operation, even though the result is the same, the charge of infringement is avoided.

The Fifth Circuit Court held that the Simmons structural claims "must be limited to the form of apparatus disclosed" and so concluded that:

"Johnston does not use a stop cock valve, nor actuate it by turning the string of pipe, but his means of trapping and withdrawing the sample are substantially different from those disclosed by Simmons. The Johnston apparatus does not infringe." (p. 273.)

The device used by defendants and covered by the five Johnston patents is shown in the drawings appearing in the book of exhibits. (R. Vol. 2, pp. 225-227; Ex. 16-B, 16-C and 16-D.) It is described in the testimony of O'Neill. (R. Vol. 1, pp. 220-276.) A full size device was examined in open court by the District Judge, who found as a conclusion of law that there was no infringement, even if the claims were valid. (R. Vol. 1, p. 42.) Accordingly, a decree to that effect was entered. (R. Vol. 1, p. 43.)

One type of defendants' accused device is used for making "water shut off" or casing tests. (Plffs. Ex. 16-D.) The packer presses against the inside of the casing. The use of such a device for that purpose, obviously not an infringement under any theory of this case, is actually enjoined under the present decree of the Ninth Circuit Court of Appeals.

A somewhat different type of accused device is used by defendants in making formation tests. (Plffs. Ex. 16-B; R. Vol. 2, p. 225.) In the drawing, Fig. 1 is the tester, including four valves, attached to the drill pipe, and Figs. 2, 3 and 4 show different forms of

packers. Fig. 5 shows the trip valve, which is the inlet to defendants' testing chamber.

The operation of the Johnston tester, equipped with a rat hole packer, is shown in the drawing (Plffs. Ex. 16-C; R. Vol. 2, p. 226), in which Fig. 1 represents the device going into the well, with both the main valve and trip valve closed; Fig. 2 discloses the packer set with the main valve and trip valve open; and Fig. 3 shows the device coming out of the well, with the main valve closed and the sample trapped in the pipe.

The Johnston complete device has four valves, as distinguished from the single rotating valve in the Simmons patent. The four valves are the: (1) main valve; (2) trip valve; (3) equalizing valve; and (4) emergency or circulating valve.

The Simmons device shows only a rat hole packer and the claims are limited to a formation tester, whereas the Johnston device may be used either for formation or casing tests. The Simmons valve opens and closes by rotating the drill pipe to the right or left. In the Johnston device, simultaneously with setting the packer, the weight of the drill pipe compresses the large spring and opens the main valve while the equalizing valve is being closed. The opening of the main valve does not, however, permit the fluid to enter the drill stem, which is still closed by the trip valve. The trip valve is the real entry into the Johnston sampling chamber and is opened by dropping a "go-devil" into the drill pipe at the top of the well, the trip valve opening only when the

"go-devil", after passing rapidly downward through the drill pipe, forcibly strikes the trip valve positioned within the drill pipe and above the main valve.

When the operator wants to close the Johnston device, he lifts the drill pipe upwardly and in doing so removes the weight off the packer, which in turn causes the giant spring to close the main valve, thus retaining the fluid sample within the drill pipe and above the main valve. The pipe is then withdrawn and the sample examined.

Of course, the sample can also be obtained at the top of the well hole without the necessity of closing the main valve, when the pressure is sufficient to cause a flowing well.

If the well hole is crooked, as most of them are, the packer will often stick, the drill stem twist and, in the case of the Simmons device, the valve will open while the device is descending and so ruin the test. Using the Johnston device under the same circumstances, the closed and locked trip valve would prevent foreign matter from coming into the drill pipe even though the main valve opened while the device was being lowered into the well hole.

The Simmons tester has no means for circulating drilling fluid while going into or coming out of the well. On the other hand, the Johnston device provides for such circulation by reason of the circulating valve. A careful driller will not use a device through which he cannot pump rotary mud in case of an emergency, even though in doing so the sample be lost, as it would with the Johnston tester.

Rotating the Simmons device to the right or left, in order to open or close the valve, would have a further tendency to unscrew the drill pipe at any coupling, a condition which could not occur in using the Johnston tool which is only slightly raised and lowered (not rotated) in order to open or close the main valve. The "go-devil" is dropped through the drill pipe to open the trip valve or final entrance into the Johnston testing chamber (drill pipe) and no movement of the pipe is required for that purpose.

Those are only some of the many differences between the structure and mode of operation of the two devices. Since plaintiffs' patent does not disclose a primary invention, if it be an invention at all, but at most only a slight improvement, and defendants' construction and manner of operation may be readily differentiated from the patent in suit, it must follow that under the authority of *Cimiotti Unhairing Co. v. American Fur Ref. Co.*, supra, and other cases, the charge of infringement cannot be sustained.

The above conclusion is inescapable when we remember that the patented article never went into commercial use. (R. Vol. 1, pp. 592-596.) Plaintiffs, realizing the weakness of their position, attempted to prove, at the trial, the success of the later developed Halliburton "Stop Cock and Gear" (R. Vol. 2, pp. 312-313) and "J-Slot" (p. 315) testers.

The "Stop Cock and Gear" device consisted of a stop-cock valve, a gear, ball bearings, and a tube that extended upwardly from the valve inside the drill stem, for which an application for patent was



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filed by Halliburton. More recently, the Halliburton "J-Slot" tool with a compression spring has been used. (R. Vol. 2, pp. 224, 315.) It closely resembles the Johnston tester and is a wide departure from the original Simmons tool. The device requires a quarter turn and simultaneous lowering to open; a quarter turn back and upward movement then permits a spring actuated valve or valves to close the device.

Halliburton's own appraisal of the Simmons device, embodied in statements to the Patent Office, and his action in junking it and applying for a patent on his own stop-cock and gear device, and his more recent "J-Slot" tool, having an entirely different mode of operation from the former Simmons tool, completely disprove any contention that the Simmons device has had a widespread commercial success. On the contrary, it was a complete failure. The commercial use of the later "Stop Cock and Gear" device and the recent "J-Slot" tool, establishes the inoperativeness and failure of the original Simmons design.

None of the claims in suit, either apparatus or method, is readable on the structure and operation of the Johnston tool. But even if, as a matter of language, the Simmons claims are readable on defendants' structure or method, it would not follow that plaintiffs' patent was infringed, because the Johnston tool and its mode of operation are so different from anything shown or described in the patent.

The Simmons claims must be read in the light of the specifications and drawings of the patent, and if

defendants' device reaches the same result by different means or mode of operation, the charge of infringement is not sustained.

The leading case on this subject is *Westinghouse v. Boyden Power Brake Co.*, 170 U.S. 537, 568, 18 S. Ct. 707, holding that where there was a substantial difference in the mode of operation for valves for air brakes, the charge of infringement was not sustained even though the Westinghouse patent was a pioneer patent, and even though the claims in that patent read upon the valves employed by the defendant. The reasoning applies with equal force to both apparatus and method claims. Said the Court:

"The patentee may bring the defendant within the letter of his claims, but if the latter has so far changed the principle of the device that the claims of the patent, literally construed, have ceased to represent his actual invention, he is as little subject to be adjudged an infringer as one who had violated the letter of a statute has to be convicted, when he has done nothing in conflict with its spirit and intent."

See, also:

*Holland Furniture Co. v. Perkins Glue Co.*,  
277 U.S. 245, 257, 48 S. Ct. 474.

Plaintiffs did not prove the use of the Johnston tool by the Honolulu Oil Corporation, the other defendant herein, nor that the method, alleged to infringe, was ever used in testing a well owned by that company. The Honolulu Oil Corporation, itself, neither made, used nor sold the device. It employed

the defendant Johnston Company only to make the test, and in doing so the Johnston Company operated the accused device. The use was solely that of the Johnston Company as an independent contractor, to secure the results it was employed to obtain. It realized the profits from the use, and the Honolulu Oil Corporation paid for the service rendered. "Where a contractor is employed to do certain work and in doing it infringes a patent, the contractor, not the employer, is liable." (48 *C. J.*, *Patents*, Sec. 544, p. 340.) See, also, *Keplinger v. de Young*, 23 U.S. 357.

Whatever view this Court takes of the patent in suit, there is no evidence whatsoever that the Honolulu Oil Corporation has infringed.

## VI.

### THE COURT'S OPINION.

In regard to the validity of the two method claims, the Circuit Court of Appeals for the Ninth Circuit, to paraphrase the opinion, said:

"Although we hold that the Franklin device anticipates the combination claims of appellant's patent *and could be used in carrying out the patented process*, this holding does not negative invention as to the process claims in suit." (p. 439.)

The Court found that in the prior art, oil well tests were made under two conditions: (1) permanently setting casing and bailing out the drilling fluid; or

(2) omitting the casing, but maintaining the circulation of drilling fluid so as to keep the well walls from crumbling in.

After reviewing the purposes stated in the Franklin patent, the Court intimated that there was something involving patentable novelty in the use of the Franklin tool for testing a well, instead of regulating its flow:

"The purposes of the Franklin patent were two-fold: First, to provide a method of keeping the tubing *closed* while it was being lowered into the well or *removed therefrom*, and, second, to provide means of temporarily closing the tubing to allow the gas in the well to obtain sufficient head so that the well would flow. There is no *use* disclosed of taking an entrapped sample from an unfinished well containing drilling fluid. The device was evidently intended to be permanently attached to the tubing of the well. There is no suggestion of the last step of the patented process in suit, that is, the taking of an entrapped sample from an incomplete well containing drilling fluid." (p. 439.)

The Court correctly states the purposes expressed in the Franklin patent, the first being to close the tubing while the device is lowered into the well "or removed therefrom"; but erroneously implies that in order to anticipate, it was necessary for Franklin to suggest that his device could be used for "taking an entrapped sample". *Stow v. Chicago*, 104 U.S. 547, 550.

If the device is operated in the manner intended by Franklin, the result is inevitable that any fluid entering the tubing would be entrapped therein when the valve is closed, and such fluid would be available to the operator for testing purposes after the device is withdrawn.

Franklin may not have been interested in recovering what Simmons has called "an entrapped sample", but the thing he did recover was precisely the same.

We respectfully disagree with the Court below that Franklin intended the device to be "permanently attached" to the well tubing, for he describes not only the insertion; but also the withdrawal, of the tubing. If it was to be attached only once, and thus permanently, its withdrawal would be of no moment.

We likewise disagree with the Court that there is no suggestion of the last step of the alleged patented process, that is, "the taking of an entrapped sample from an incomplete well containing drilling fluid". What Franklin did recover was a portion of the oil from the formation—call it an entrapped sample or whatever one may please. The well in which the Franklin device was to be used, being a well of the time of his patent, was incomplete in the sense of the term as now used, in that it was not cased to the bottom, if cased at all, and there was the same, if not greater, possibility of a cave-in than exists in the unfinished well of today. True, it did not contain rotary drilling fluid, as we now know it, but it contained other fluids, which were less adaptable to the

maintenance of the walls of the well than is the drilling fluid of today.

Since Franklin was entitled to every use to which his tool could be put, whether he knew it or not, on the expiration of his patent the public falls heir to that right.

Other inventors, prior to Simmons, had found that permanently setting a casing and bailing out were unnecessary and that a test could be made by allowing rotary drilling fluid to remain in an uncased well. The Cox patent No. 1,347,534 and Edwards patent No. 1,514,585 are examples of devices for "taking an entrapped sample from an unfinished well containing drilling fluid".

In another portion of the opinion the Court found that if the pressure of the drilling fluid against the open well walls was removed, cave-ins against the drill pipe might prevent the removal of the testing tools. The Court then concluded:

"The patentee discovered that a well could be safely tested by the lowering of a *single string* of pipe equipped with a valve packer and strainer and that it was not necessary to set the casing permanently and bail out the drilling fluid, or, if a test were attempted without permanently setting the casing that it was not necessary to provide an extra string of pipe for *circulation* of the drilling fluid." (Citing *Lawther v. Hamilton*, 124 U.S. 1, 8 S. Ct. 342, and other cases.)

Even plaintiff, Halliburton accords Simmons no such discovery, as Halliburton's own experience in

cementing wells had taught him the same thing the Court says Simmons discovered. (R. Vol. 1, p. 70.)

We submit that if Simmons merely discovered "that a well could be safely tested by the lowering of a *single string* of pipe equipped with a valve packer and strainer" (the old Franklin combination) into an unfinished well (as Franklin did) for the purposes of testing, then the conclusion is inescapable that he merely found a new use, at most, for the old Franklin tool. That really is the basis upon which the Court rests its decision.

But the Court also says that Simmons found that it was not necessary to provide an extra string of pipe for *circulation* of drilling fluid in an unfinished well for the purposes of testing. Franklin had used a single string and found it unnecessary to circulate fluid in an unfinished well. Here again, we submit, if the Simmons discovery was that in an unfinished well "it was not necessary to provide an extra string of pipe for *circulation*" (as with Franklin) in order to make a test, then the conclusion is equally certain, that here again Simmons only found a new use for an old device.

Lowering a "single string" of pipe, or dispensing with "circulation", is really saying the same thing in different ways. Franklin did both in an uncased and unfinished well, as it was known in his day. If Cox and Edwards preferred to lower a two-string device through such drilling fluid to make a test, what is to prevent the public from lowering the old Franklin



one-string device through such drilling fluid, in order to make a similar test? Even in the old days, the Franklin tool was inserted in whatever fluid the well contained.

Simmons did not discover that an uncased well wall might crumble, unless supported by rotary mud, and prevent oil well tools from being withdrawn; nor did he discover that a casing would prevent such cave-ins. Those discoveries, really phenomena of nature, unpatentable in themselves (*Tilghman v. Proctor*, 102 U.S. 707, 726), were made long before the time of Simmons and are wholly unrelated to any testing process.

If the alleged discovery of Simmons is the omission of both a casing and circulation, then such omission really possesses no merit and has no use. Both plaintiffs and defendants must utilize the casing, when water shut-off tests are made; and while employing single string testers, they do not omit altogether the circulation of drilling fluid. By use of extra valves, they can and do reestablish circulation whenever necessary, conclusively showing that any thought Simmons may have had of dispensing entirely with circulation was impractical and was never commercially used either by himself or his successors in interest.

*Lawther v. Hamilton*, 124 U.S. 1, 8 S. Ct. 342, relied on by the appellate court in reaching its conclusion, is not applicable. In that case the patentee eliminated a step of a prior process and secured the same or more

advantageous results thereby. Simmons, by eliminating circulation and the ability to circulate, did not retain the same benefits that had previously existed. The two-string devices of Cox patent No. 1,347,534 and Edwards patent No. 1,514,585 utilized the second string solely for maintaining circulation. When Simmons abandoned the second string and went back to the old Franklin device, he also abandoned the function of such second string, viz.: to maintain or re-establish circulation.

Simmons, therefore, does not come within the rule of *Lawther v. Hamilton*, supra, that one who eliminates a step in a process, and secures the same or more advantageous result, has made a patentable advance in the art. On the contrary, Simmons really falls within the rule of *Richards v. Chase Elevator Co.*, 159 U.S. 477, 486, 16 S. Ct. 53, that the elimination of an element with its corresponding function does not amount to invention. That is also true of process patents. *American Fruit Growers v. Brodger Co.*, 283 U.S. 1, 51 S. Ct. 328.

The correct view, respecting the Franklin patent, was expressed by the Circuit Court of Appeals for the Fifth Circuit, as follows:

“We find the simplicity of the Simmons method, along with all its operations, reasonably disclosed in the old patent to Franklin, No. 263,330, August 20, 1882. There is the single pipe with a packer mentioned but its function esteemed so familiar as to need no emphasis, capable of being lowered

into and withdrawn from a well, with the entrance into or escape from the pipe to be controlled by a valve operated from above while the pipe is lowered into or withdrawn from the well. The importance of Franklin to this method claim is that he describes the use of a packer on a *single string of pipe* with a valve in the pipe in the very operation of putting them in and taking them out of the well \* \* \* He expected to get what was below the packer by a natural flow, just as Simmons in his disclosure says it is to be preferred \* \* \* But we think that just as Simmons, when the fluid beneath whether gas or oil will not flow, closes his valve and raises his pipe to see what is in it, so one using the Franklin equipment could proceed if he wished to see what was in his pipe \* \* \* Nor do we think it would be invention for one having a Franklin device to use it to sample a well through drilling fluid instead of using it to flow the well through water or air above the packer \* \* \* we do not think that recurrence for this *new use* to what is in substance the simple apparatus of Franklin ought to be the foundation for broad method claims such as are here put forth." (p. 272.)

Referring to method claim 18, in particular, the Fifth Circuit Court said:

"It assumes familiar apparatus and claims a monopoly on a *new use* of the old apparatus to achieve a result in a better way." (p. 272.)

Every element which is today present in the drilling of a well was present at the time Franklin made and

described his invention. The fluids above the Franklin packer may not have been of the density of the drilling fluids of today, but that is, after all, only a matter of degree, and surely does not impart novelty in the use of an old device.

But even assuming that the method of testing a well by securing and entrapping a sample was the subject matter of patent protection, then Cox and not Simmons made that invention. The novelty of such a method does not and cannot depend on the particular apparatus used.

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## VII.

### CONCLUSION.

With the advent of deep well drilling by the rotary method, the need of testing through mud-laden fluid became readily apparent. From that time on, permanently setting casing and bailing out was obsolete as a method of testing an oil well. Cox and Edwards were abreast of the times, and disclosed testing devices for entrapping samples in uncased mud-filled wells. Simmons, himself, was only a late comer. With the knowledge of Cox and Edwards readily at hand, it did not require the genius of invention for Simmons to use the old Franklin tool in the new environment. The skill of the calling, rather than the genius of an inventor, was all that was necessary. The rule is so well known, that we will cite only a few of the recent cases decided by this Court:

“An improvement to an apparatus or method, to be patentable, must be the result of invention, and not the mere exercise of the skill of the calling or an advance plainly indicated by the prior art.” (Citing cases.) *Altoona Publix Theatres v. American Tri-Ergon Corp.*, 294 U.S. 455, 458, 55 S. Ct. 449, 458.

See also:

*Concrete Appliances Co. v. Gomery*, 269 U.S. 177, 46 S. Ct. 42;

*Saranac Automatic Machine Corp. v. Wire-bounds Patents Co.*, 282 U.S. 704, 715, 51 S. Ct. 232;

*De Forest Radio Co. v. General Electric Co.*, 283 U.S. 664, 685, 51 S. Ct. 563;

*Electric Cable Joint Co. v. Brooklyn Edison Co.*, 292 U.S. 69, 54 S. Ct. 586.

Plaintiffs, as assignees of a worthless patent, should not now be permitted to throttle an industry and mulct the public by establishing a monopoly on all oil well testing operations.

“It is as important to the public that competition should not be repressed by worthless patents, as that the patentee of a really valuable invention should be protected \* \* \*” *Pope Manufacturing Co. v. Gormully*, 144 U.S. 224, 234, 12 S. Ct. 632.

In conclusion, we confidently assert that the method and apparatus claims in suit are invalid for lack of invention over the prior art, taken as a whole, and for that additional reason the Circuit Court of Appeals

for the Ninth Circuit was in error when it held the two method claims valid and infringed.

Dated, San Francisco, California,  
January 14, 1939.

Respectfully submitted,

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